UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Docket Nos.: 50-390/83-22 and 50-391/83-16

Licensee: Tennessee Valley Authority
500A Chestnut Street
Chattanooga, TN 37401

Facility Name: Watts Bar 1 and 2

Docket Nos.: 50-390 and 50-391

License Nos.: CPPR-91 and CPPR-92

Inspection at Watts Bar site near Spring City, Tennessee

Inspectors: L. J. Watson 7/22/83
for T. L. Weatherly, Senior Resident Inspector, Operations — Date Signed

L J Watson 7/22/83
for W. Swan, Senior Resident Inspector, Construction — Date Signed

L J Watson 7/22/83
for S. Butler, Resident Inspector — Date Signed

Approved by: [illegible] 7/22/83
for D. R. Quick, Section Chief — Date Signed
Project Branch No. 1A
Division of Project and Resident Programs

SUMMARY

Inspection on May 21 - June 20, 1983

Areas Inspected

This routine, announced inspection involved 26 inspector-hours on site in the areas of Preoperational Test Review and Witnessing, Independent Inspection, Preoperational Test QA Program, Followup on Licensee Identified Items, Followup on Previous Enforcement Items and Concrete Placement.

Results

Of the five areas inspected, no violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

G. Wadewitz, Construction Project Manager
W. Cottle, Plant Superintendent
C. Tetton, Construction Superintendent
S. Johnson, Quality Manager
T. Hayes, Nuclear Licensing Unit Supervisor
W. Byrd, Compliance Supervisor Nuclear Power
G. Owens, Nuclear Licensing Engineer.

Other licensee employees contacted included 10 engineers.

2. Exit Interview

The inspection scope and findings were summarized on June 17, 1983, with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Enforcement Matters

a. (Closed) Violations (390/81-14-01, 02, 03, 04) Failure to Follow Procedure, Inadequate Procedure, Inadequate Training of Test Personnel and Inadequate Test Control Regarding Damage to 1A-A Centrifugal Charging Pump During System Flush. The inspector reviewed the licensee's response to the violations dated December 7, 1981 and January 18, 1982, and the implementation of corrective action. The review included procedure WBNP-QCT-4.36 "General Procedure for Preoperational Cleaning and Flushing of Fluid Handling Systems and Components" and recently completed test packages prepared in accordance with QCT-4.36 and interviews with Startup Test and Coordinator Section Personnel (Division of Construction) and Operations Section personnel (Division of Power). The inspector also reviewed Operations Section Letters OSLA-27 "Assistant Unit Operator Work Stations" and OSLA-28 "Work Station and Equipment Protection Certification" and reviewed selected training files for Assistant Unit Operators. In general it appears that the licensee's stated corrective action was adequate to prevent subsequent violations and continues to be properly implemented.

Additionally the inspector discussed the conduct of the Unit 1 Reactor Coolant System hydrostatic test with the Senior Resident Inspector (see IE Inspection Report 390/81-23). The proper conduct of the test provides additional assurance that the licensee's corrective action to increase construction testing control and Construction/Power interface during testing is effective. These violations are closed.

b. (Closed) Violation (390/82-05-04; 391/82-03-04) Criterion I Failure to Establish and Delineate Authority and Duties. In January 1982, the inspector noted that the construction site quality assurance program had not defined the authority and duties of the units responsible for the transfer of system process within the Construction Engineering Organization (CEO). There was confusion on responsibilities for implementing QA program requirements for the process and effluent radiation monitor cabinet internals. These and other items were cited to demonstrate a failure to clearly establish and delineate authorities and duties for organizations performing activities which were safety related.

In reaction to this citation of violation, the licensee prepared an organization manual section entitled, "TVA Division of Construction - Responsibilities Descriptions - 1982." This volume was issued August 30, 1982. After reviewing this document and holding discussions with site management personnel, the resident inspector concluded that assignment of authority and responsibilities and descriptions of duties were adequate to justify closing the violation. This violation is closed.

Between August 20, 1982 and February 23, 1983, implementation was adequate. Between February 23, when the site construction organization was expanded and major reallocation of authorities, responsibilities and detailed duties went into effect, and April 7, 1983, the manual descriptions of responsibilities and duties and of the various groups did not match the charted organizational assignments. On April 7, 1983, the Director of Construction issued a new set of descriptions replacing the entire August 20, 1982 manual section. The transmittal memorandum stated "to ensure this document fully meets the responsibility description requirements and actually reflects our organization," a representative from the Industrial Engineering Unit, MSB, would contact M-6 and M-7 site management representatives to arrange reviews with them and appropriate subordinates.

During this inspection period these reviews had not been completed. The site organization charts have been modified and republished monthly through May 31, 1983.

Until the Industrial Engineering Unit reviews are completed and modifications made to adjust for the findings, this matter will be tracked as Unresolved Item 50-390/83-22; 50-391/83-16, Verification That Responsibility Descriptions Agree with Site Organizational Charted Assignments.

c. (Closed) Violation (390/83-23-13) Failure to Maintain Storage Controls; RWST. The violation identified a failure to protect safety related instrumentation within the RWST mote. Due to inadequate drainage, rainwater collected and flooded unprotected equipment. The licensee initiated an ECN to modify the drainage system and a Nuclear Power

Section Instruction Letter addition was implemented to require that operators monitor and pump down the mote as necessary to protect equipment. TVA is presently studying methods to better protect equipment which could include moving instrumentation and making further mote modifications. This item is closed.

d. (Closed) Violation (390/82-09-02, 391/82-07-02) Failure to Carry Out An Auditing Program For Nuclear Power Activities. The violation identified that a comprehensive system of planned and periodic audits had not been conducted for fourteen months concerning Division of Nuclear Power (Nuc Pr) activities during the construction and testing phase. In response the licensee stated that they had failed to recognize the extent of related Nuc Pr activities at Watts Bar that required auditing. The licensee commited to resume auditing activities in 1982 and to include Watts Bar in the operation audit schedule. Furthermore, Revision 5, to the TVA Topical Report (TR-75-1) clarified the auditing responsibilities of the Office of Power Quality Assurance and Audit Staff. (Recently reorganized as the Office of Quality Assurance Operations QA Branch.) The inspector reviewed the audit schedule for 1982 and 1983 (partial). The audits appeared to address areas of most important activities concerning Nuc Pr. The audits included turnover programs; corrective actions; nuclear material safeguards; control of special processes; plant maintenance and repair; and plant storage. Based on the inspector's review the licensee appears to be conducting a program of audits that meets the minimum regulatory requirements.

This item is closed.

e. (Closed) Unresolved Item (390/81-13-03) G-43 Requirements. This item identified that Construction Specification G-43 requirements may have inadequately defined steps necessary to preclude equipment damage during construction testing. Specifically, G-43 required adequate deadweight support for flushing and hydrostatically testing systems; however, dynamic forces due to mechanical transients did not appear to be addressed. TVA's position was that G-43 did adequately define steps to preclude damage. Construction forces were required to schedule construction testing such that mechanical transients were not induced or would otherwise violate G-43 requirements. The inspector discussed the implementation of this requirement with Construction Engineering Organization (CEO) managers. The managers stated that construction testing such as the RCS hydrostatic test were thoroughly evaluated prior to running reactor coolant pumps. The inspector concurred with the managers since the inspector had previously reviewed hydrostatic tests prerequisites and found them to be adequate. Concerning flushing water flow forces, the managers stated that in most cases flows were constant or uninterrupted during flushing and the forces generated were minimal when compared to deadweight forces. Identified cases of water hammer were required to be evaluated. One case was known to have existed and had been investigated by CEO. The inspector concurred with the licensee's program.

This item is closed.

f. (Closed) Unresolved Items (390/81-14-10, 391/81-14-01) Stainless Steel Check Valves In DG Air Start System. The inspector discussed the item with Quality Engineering Section personnel and reviewed nonconformance reports NCR W-61-P and NCR W-50-P and correspondence with the DG vendor. The licensee determined that the check valves had been changed to stainless steel without prior design review due to an inadvertent substitution by the vendor. The vendor stated that their quality assurance program had been improved to prevent recurrence and that the stainless steel valves were at least equivalent to the original valves. The air start check valves had previously been determined to be of inadequate design by the licensee's maintenance personnel and they had written a design change request to replace the valves. The site has replaced the valves under their temporary alteration procedure pending final design approval.

This unresolved item is closed.

g. (Closed) Unresolved Item (390/81-16-02) Review of Past Nonconforming Condition Report Dispositions. The Division of Nuclear Power Quality Engineering Group performed a review of all past nonsignificant nonconformances (NCR) to ensure proper notification and disposition. No NCR was found that had not been transmitted and evaluated by the affected organizations. In April 1983, the inspector had performed a similar audit and had determined that the transmittals had been accomplished adequately.

This item is closed.

h. (Closed) Unresolved Item (390/83-14-03) Use of Epoxy Grout On Hanger Installations. The item identified that epoxy resin grout had been specified for use on a safety related pipe support. Response to previous enforcement had indicated that the grout would not be specified for use in environments greater than 120°F.

After investigation by the licensee, it was determined that "intraplast" had been used instead of epoxy grout. Furthermore, the licensee uses a small core of engineers to apply the epoxy grout. Management indicated that these are the only people who are qualified to apply the grout and have been trained in its use. Training has been conducted to ensure that the grout is not applied in environments that exceed 120°F. The inspector found this method acceptable.

This item is closed.

i. (Closed) IFI (390/83-18-02) Arc Strikes. The inspector identified several arc strikes on the main steam header (Loop #1) that appeared to have been made deliberately. Subsequent investigation by the licensee determined that the strikes were probably accidental. Corrective actions included initiation of arc strike removal sheets, wall

thickness readings and NDE examinations. Corrective action was assessed as adequate.

This item is closed.

j. (Closed) Open Item (390/82-22-03; 391/82-18-02) Licensee Review of Design Criteria and CEB-EP-21.28. This item stemmed from a review by the resident inspector of Engineering Design (ENDES) procedure CEB-EP-21.28 "Field Evaluation of the Effects of Postulated Pipe Ruptures" and Design Criteria WB-DC-40-31.50 "Evaluating The Effects of a Pipe Failure Inside and Outside Containment." Possible weaknesses identified included handling of nonconformances; differences in definitions in the two documents; failure to require the Pipe Rupture Evaluation Team (PRET) to evaluate design changes that could affect upcoming field evaluations; failure to require evaluation of environmental interactions within the area of an assumed rupture jet as specified in the design criteria; and a need for evaluation scheduling. The inspector's concerns led to the issuance on May 11, 1983, of Revision 5 to CEB-EP-21.28. This revision covers these areas of concern by revision and enhancement of the following sections: 1.0 Purpose and Scope; 3.0 Definitions; 5.0 Procedure, subsections 5.1.2, 5.2.2, 5.2.4 and 5.2.5; and references 6.10-Regulatory Guide 1.29 and 6.11-EN DES - EP 3.42, "Engineering Evaluations of the Effects of Postulated Pipe Rupture - Work Flow and Responsibilities"; and by the addition of Figure 2, "Pipe Rupture Field Evaluation-Work Flow." The resident inspector reviewed the documentation and concluded that the licensee now has adequate procedures for field evaluations of the effects of postulated pipe rupture.

This item is closed.

k. (Closed) Open Item (390/82-12-02) Time Delay Settings For ERCW Valves. The item identified conflicts between preoperational test procedures, design drawings and licensing documents. Specifically, acceptance criteria for operation and stroke times of Essential Raw Cooling Water (ERCW) System supply valves to the Auxiliary Feedwater System (AFW) were specified differently.

The inspector reviewed Preoperational Test TVA-22 to verify that operating sequences and stroke times were specified. Sequence and timing requirements were defined in Section 5 of the test and acceptance criteria added in Section 6.

This item is closed.

l. (Closed) Open Item (390/82-09-06; 391/82-07-06) Vendor Information Tracking Systems. This item discussed an apparent conflict between specified vendor information and monitored parameters for the diesel generators. The item further discussed that WBNP Nuc Pr had no mechanism to ensure that vendor information, when received, was reviewed and evaluated for plant procedural changes.

The inspector reviewed a recent vendor letter that explained and rectified previous information pertaining to diesel parameters. Site procedure WP 6.3.13 was developed to review and incorporate vendor information into procedures.

This item is closed.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. A new unresolved item identified during this inspection is discussed in paragraph 3.b.

5. Procedural Review and Test Witnessing - Auxiliary Feedwater System (AFW)

The inspector witnessed a part of preoperational test, TVA-22, Auxiliary Feed Water (AFW). The test involved running the turbine driven AFW pump from auxiliary boiler steam. When the pump was brought up to speed it was noted that one pump bearing oiler ring was not functioning properly. An initial adjustment was performed; however, the oiler ring still did not function properly. The bearing was partially disassembled and subsequent investigation revealed that vendor instructions were unclear on bearing assembly and the oiler would only work with the bearing keeper installed in a certain orientation. The licensee wrote a potentially significant NCR to identify the problem. Since this occurrence was similar in nature to occurrences that had resulted in a charging pump failure and subsequent enforcement (IE Report 390/81-14) for lack of QA controls during operation of safety related equipment, the inspector closely monitored the activities. The group's actions, both their willingness to stop the inprogress evolution to protect equipment and to identify needed corrective actions, was apparent.

Function checks of the AFW steam supply valves were also witnessed and were adequately performed. Procedural steps for both evaluations were well defined. Within the areas inspected, no violations or deviations were identified.

6. Preoperational Test QA Program Review

a. The inspector attended an OQA post audit conference to assess the adequacy of identified findings and the line/QA management interface. The audit was conducted to assess the procurement and storage program within Nuclear Power. The auditors discussed several areas and identified several minor procedural inadequacies for assessment by line managers. No significant violations of the specified QA program were identified. Program effectiveness, while not directly mentioned by the auditors, appeared adequate based upon audit findings. No violations or deviations were identified within the areas inspected.

b. Both inspectors attended a meeting of top WBNP managers conducted by the Manager, OEDC. The manager emphasized his concerns with responsiveness, timeliness, overall quality and ensuring that documentation and physical work were conducted simultaneously. The construction inspector provided a brief review of findings remaining to be addressed prior to Unit 1 licensing.

7. Independent Inspection Effort

The inspectors transmitted generic concerns to the licensee, attended hot functional ceremonies, discussed Essential Raw Cooling Water (ERCW) concerns and witnessed removal of the 2BB diesel generator bearing. Findings were as follows:

a. The inspector transmitted eight potentially generic concerns to the licensee that had been identified as reportable by other utilities. Those concerns were as follows:

(1) Failure of Anchor Darling Globe Valves to Operate. The licensee indicated that several contracts and numerous systems were involved with Anchor Darling valves but that neither mechanical nor electrical post installation checks had revealed operational problems. Pre-operational testing had not revealed any deficiencies.

(2) Unacceptable Location of Control Valve Positioners. A review of drawings indicated that WBNP had no problem.

(3) Deficient Brown Boveri Electrical Equipment. Not utilized at WBNP.

(4) Westinghouse Gate Valves - Premature Indication of Closure. WBNP had documented this problem on NCR WBN NEB 8302.

(5) Defective AKR-30 and AKR-50 GE Breakers. Not applicable to WBNP.

(6) Potentially Defective HMA Relays and SBM Switches. Switches manufactured within the specified time frames were not used at WBNP.

(7) Failure of Diesel Generator Holddown Bolts. Discussion with preoperational and operational personnel did not indicate any problem with bolt failure.

(8) NSSS Component Support Steel. Instances had occurred where supplied NSSS support steel had been received but differences had been resolved through the Field Change Request process.

b. The inspector observed removal of the generator from the emergency diesel generator unit and preparations for its shipment to TVA shops at Mussel Shouls. The generator will be dismantled to determine the cause of failure of a main bearing. Site facilities were inadequate for this work.

c. The inspector reviewed correspondence between TVA and NRR concerning stabilization of yard soils between the power blocks and the Tennessee River. The soils may be susceptible to liquifaction during an earthquake. The inspectors held discussions with site management and reviewed charting of conditions already investigated. The remedial work will be inspected as it proceeds.

d. The inspectors attended the ceremonies on March 31, 1983, marking the start of hot functional testing of unit 1 systems. They did not participate in the ceremonies but held discussions with visiting officials covering scheduling, clearance of open items and quality assurance.

8. Concrete Placement

The construction senior resident inspector inspected curing of newly placed concrete in the upper walls of the additional diesel generator building. Curing was found to be adequate and in conformance with requirements. The advisability of use of a formal curing tag (stating the methods and duration of curing and the earliest date and time for removal of forms) instead of verbal instructions by a QC inspector to laborers was discussed with QC supervision.

9. Followup On Licensee Identified Items

a. (Closed) LII (390/81-10-02; 391/81-10-02) Auxiliary Power System Design Item. This item duplicates CDR 390/81-16, 391/81-15 which was reported on September 25, 1980 by the licensee.

This item is closed.

b. (Closed) LII (CDR 390/81-28; CDR 391/81-27) Waiving Source Inspection Without Proper Authority - QA Program Fails To Meet ANSI N 45.2-11: Reportable Deficiencies - Procurement Control Activities. WBRD-50-390/81-28; WBRD-50-391/81-27. Audit M 80-11.

Description of Deficiencies

TVA's Nuclear Safety Review Staff conducted an investigation into the procurement activities conducted by TVA's Division of Engineering Design (EN DES) and reported their findings to the QA manager of the Office of Engineering Design and Construction (OEDC). As a result, the following findings were determined to be significant conditions adverse to quality by the OEDC QA manager.

Deficiency A - The Quality Engineering Branch (QEB) of EN DES certifies its inspector personnel in nondestructive examination. However, QEB personnel have not established the required qualification/certification program for its inspector personnel involved in the inspection of other special process areas.

Deficiency B - QEB inspection reports and accompanying documentation on two contractors were not completed per estalished QA requirements.

Deficiency C - QEB procedures, Inspectors' Manuals, and ANSI 45.2-1971, Section 7 contain contradictory statements regarding the appropriate authority to grant waivers of source inspections.

Deficiency D - A review of TVA documentation did not establish that adequate pre-award activities were conducted with regard to how a supplier intends to meet procurement contract requirements.

Deficiency E - GE and C. F. Braun Company were making STRIDE equipment changes without providing TVA field personnel with updated and current documents. Note that this deficiency applies only to Hartsville and Phipps Bend Nuclear Plants.

The licensee reports on these matters under CDR 390/81-28 and CDR 391/81-27 have referred to Audit M 80-11 wherein the various deficiencies are numbered rather than having letters as in the listing above. There is no easy cross correlation and the wording of the deficiency items varies somewhat from that above.

Audit Deficiency A cited inadequate procedures to define the qualification/certification program for QEB (Quality Engineering Branch) inspection personnel. QEB Engineering Procedure (EP) 24.40,"RO Certification and Training of QEB Personnel" was issued March 15, 1983 to document detailed requirements for, and fulfillment of training and certification for QEB inspectors by titles and grade. QEB-EP 24.70, "Surveillance Planning" defines the requirements of inspection planning and of surveillance planning. The inspector found that issuance of these documents provides an adequate framework for insuring QEB inspector training and certification.

Audit Deficiency B stated that QEB inspection reports and accompanying documentation on two "problem" vendors were not completed in compliance with established QA requirements. Review of 34 inspection reports involving these vendors identified several deficiencies.

To prevent recurrence, two procedural corrections were made:

a. In EN DES-EP 5.43, R6, "Release of QA Items from Suppliers' Shops to TVA Construction Sites," issued March 25,1982, (ESS 820325 215), instructions have been rewritten to clarify which copies of the final inspection report will be sent to QEB personnel in Knoxville and when these copies will be sent.

b. In QEB-EP 24.56, R1, "Inspection Reports - Preparation, Review, and Distribution," issued July 23, 1982, a procedure was rewritten to clarify the necessity of resident inspectors (at vendor shops) writing an inspection report for each significant contact with a supplier.

The inspector reviewed these procedures and judged that they can clear the concerns.

Audit Deficiency C stated that QEB inspectors were waiving source inspections without proper authority. QEB procedures did not require approval by the requisitions' originating organization to waive inspection.

QEB procedures have been revised to eliminate conflicts involving the waiving of inspection. Engineering procedure EN DES-EP 5.43," Release of QA Items From Suppliers' Shops to Construction Site," Revision 6, dated April 1, 1982, clarifies provisions for waiving source inspection and identifies waivers which require approval of the Technical Engineer. Procedure Section 7.0, "Release of Items Without TVA Inspection Prior To Shipment," details requirements for handling waivers under specified conditions. The TVA Checklist and Shipping Release includes a statement that the inspection was waived and gives special instructions to the Division of Construction when inspection in the field is required.

The inspector reviewed and found acceptable the corrective actions on Deficiency C.

Audit Deficiency D stated that contract pre-award activities did not reveal how the supplier intended to meet procurement contract QA requirements.

The licensee's Final Report dated April 27, 1983, detailed the sequence of revisions to procurement documents and contract review and approval procedures that the inspector believes now clarify the methods used by TVA to assure that a supplier has and can implement an adequate QA-QC program. This clears Deficiency D.

Audit Deficiency E: Not applicable to Watts Bar.

This item is closed.

c. (Closed) LII (CDR 390/80-05; CDR 391/80-05) Seismic Qualification of Control Equipment. On September 22, 1980, the licensee identified that a contract review had revealed that certain control equipment mounted in boxes installed in various safety related systems had not been qualified by seismic tests to design criteria. The scope of the deficiency was limited to two basic types of control equipment manufactured by the Square D Corporation, i.e., selector switch and pushbutton control.

TVA submitted a representative sample (two devices) of the control equipment to Wyle Laboratories for seismic qualification testing. Both tested satisfactorily. TVA designers concluded, on the basis of the test results, that no corrective actions are required on installed similar devices. An NRC Region II electrical systems inspector reviewed the documentation and informed the resident inspector of his concurrence in the licensee's decision.

The resident inspector has also reviewed the documentation and inspected typical installations and identified no cause to disagree.

This item is closed.

d. (Closed) LII (CDR-50-391/82-09) NCR W-69-P Defective 6.9 KV GE Circuit Breaker. The inspector reviewed the licensee's reports dated January 25, March 29, October 14, and December 30, 1982, and March 17, 1983, and NCR W-69-P dated May 11, 1981, which discussed the breaker deficiency and the licensee's review and corrective action. The inspector discussed the deficiency with the Electrical Maintenance foreman and reviewed Maintenance Instruction MI 57.1 "Annual 6.7 KV Switchgear Inspection" which periodically verifies breaker primary contact gap and Maintenance Request MRA-001670 which documented the licensee's check of the primary gap of safety related 6.9 KV breakers.

This item is closed.

e. (Closed) LII (CDR 390/82-32; CDR 391/82-29) Errors in WERCO Program Distributed By AAA Technology. WBRD-50-390/82-32; WBRD-50-391/82-29. NCR WBN CEB 8204. On April 9, 1982, the licensee notified NRC that TVA had made unacceptable use of the WERCO program in evaluating peak stresses on spherical and cylindrical shells.

By Final Report letter dated April 20, 1983, the licensee reported that all analyses utilizing the WERCO program have been reanalyzed and no redesign or facility modifications were required to correct errors made by misapplication of the WERCO program.

The WERCO users manual has been made a controlled document to prevent future misapplication.

The resident inspector has reviewed the documentation and agrees that the matter is not reportable under 50.55(e).

This item is closed.

f. (Closed) LII (CDR 390/82-39; CDR 391/82-26) Potentially Overstressed Embedded Plates. WBRD-50-390/82-39; WBRD-50-391/82-36, NCR WBN CEB 8203. On April 12, 1982, the licensee identified that a potential construction deficiency existed in that multiple supports had been attached to embedded plates without a design review of the embedded plates' loading cpacity.

In March 1982, TVA evaluated a sample of 69 embedded plates to determine if any would fail and none did. This testing gave a confidence level of 95 percent indicating that less than 5 percent of the embedded plates would be subjected to loads that could result in support failure. One embedded stud stressed to .96 Fy. Design allowable Fy (tensile yield strength) is .96.

In January 1983, TVA implemented interim spacing requirements to control spacing of future attachments to embedded plates. Additional sampling identified no additional overloaded anchor.

WBN Construction Specification N3C-928, "Locating Attachments on Embedded Plates," was issued February 10, 1983, and revised June 2, 1983. This specification requires design approval of attachments to existing embedded plates that do not meet the specified spacing requirements.

Additional bracing was added to the support previously determined to have an overloaded stud. The strengthening was done under EDS Nuclear Inc. drawing 1-70-138. Changes to the support were examined by the resident inspector and found acceptable. Concerns under this CDR have been resolved.

This item is closed.

g. (Closed) LII (CDR 50-390/82-91; CDR 50-391/82-87) Solid State Protection System Test Procedures - NCR WBN NEB 8217. The report identified a hardware deficiency in the Solid State Protection System. Specifically system testing could result in a partial or complete failure of a system to achieve its safety function due to slave relays inactuation.

To correct the condition adverse to quality the licensee implemented a procedural change that required the use of a test probe with an indicator lamp connected to ground and to a point between the shunt switch and slave relay. This change ensures that the shunt is restored to allow slave relay actuation. The inspector reviewed the licensee's procedure and assessed it as adequate.

This item is closed.

h. (Open) LII (CDR 50-390/82-42; CDR 50-391/82-39) Qualification of RHR/DHR Sump Valve Rooms. The inspector reviewed the licensee's final report and disagreed with the stated safety implications and corrective actions for the WBNP RHR valve rooms. The inspector's concerns were transmitted to Region II for further evaluation. This item will remain open.

i. (Open) LII (WBRD 50-390/82-84; WBRD 50-391/82-80) Lack of Qualification For Embedded Plates. The report identified that several supports for the Reactor Coolant System and Component Cooling Water System exceeded the allowable loads provided to EDS by TVA. The report also identified a failure to write a nonconformance report for the aforementioned condition.

The inspector reviewed ECN 2958 which was issued to implement corrective actions for the overloaded embedment plates. During a visual inspection, using approved drawings, the inspector noted that an embedment appeared to have more attachments than the drawing indicated. In April 1983 the inspector pointed out the discrepancy to ENDES personnel and asked if a determination could be made to ensure that the plate was adequate to carry out its safety function. On June 16, 1983, the inspector was informed that the plate and drawing differed and that additional attachments had caused the plate studs to become overloaded due to tensile stress. The licensee will nonconform the plate and expand the scope of the report. A supplementary report will be sent to NRC Region II.

j. (Open) TMI (80-RD-03) Shift Manning Requirements 1.A.1.3. The inspector reviewed the Unit 1 draft Technical Specifications, the licensee's response to NUREG 0737 requirements and plant implementing instructions, to assess shift manning. The inspector noted that all requirements appeared to have been implemented within Administrative Instruction (AI)-2.4 except for one NUREG requirement. That requirement stated that an individual should not be required to work more than 14 consecutive days without having 2 consecutive days off. This requirement was not specified in the Technical Specification. This item will remain open until AI-2.4 is updated and until the inspector determines whether the Technical Specification will be updated.